

AUSA GLAC 2010

2010-06-03T14:45:00Z

*Space, C4 & Cyber:
Prevail, Prevent,
Prepare, Preserve*



LTC Jeff Sorenson

Chief Information Officer/G-6, HQDA

AMERICA'S ARMY: THE STRENGTH OF THE NATION
ARMY STRONG



Agenda



- ④ **Warfighter Needs**
- ④ **Army Enterprise Architecture**
- ④ **Transforming Using GNEC Strategy**
- ④ **Army Network Transformation**
 - CSA “Unity of Effort” Tasking
 - “Big 4” & Lines of Effort
- ④ **Current Topics**
 - ARFORCYBER
 - FY10 Budget & POM 12-16
- ④ **Conclusions**

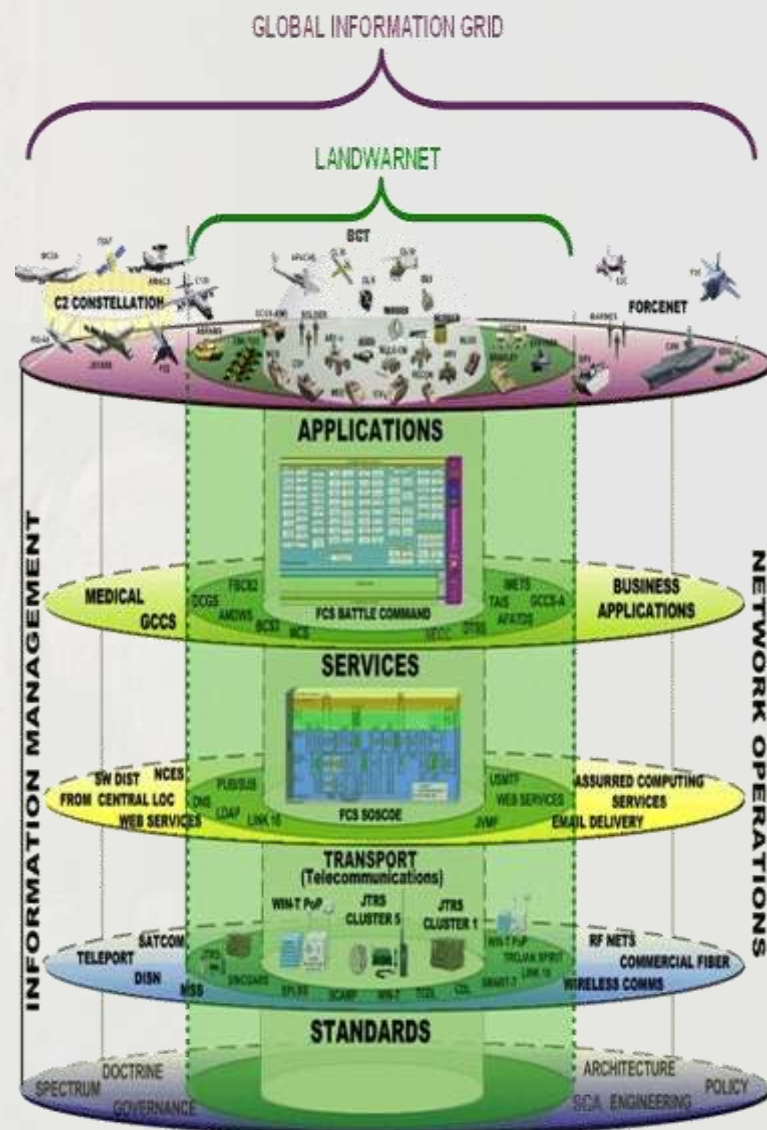




Warfighter Needs

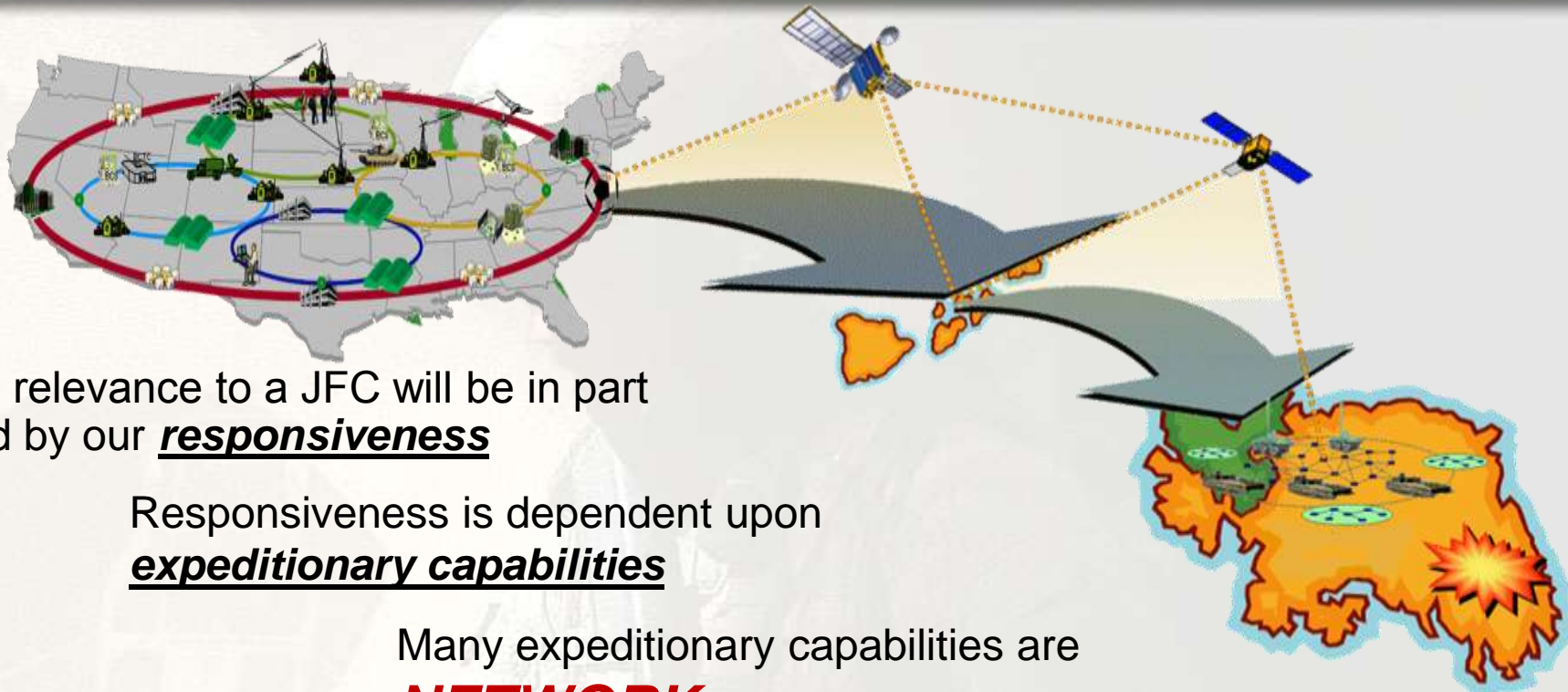


- Data Access & Discovery
- Global Access to the Network
- Single Network Infrastructure
- Common Network Policy & Standards
- Web 2.0 Tools





CONUS Based & Expeditionary



Army's relevance to a JFC will be in part defined by our **responsiveness**

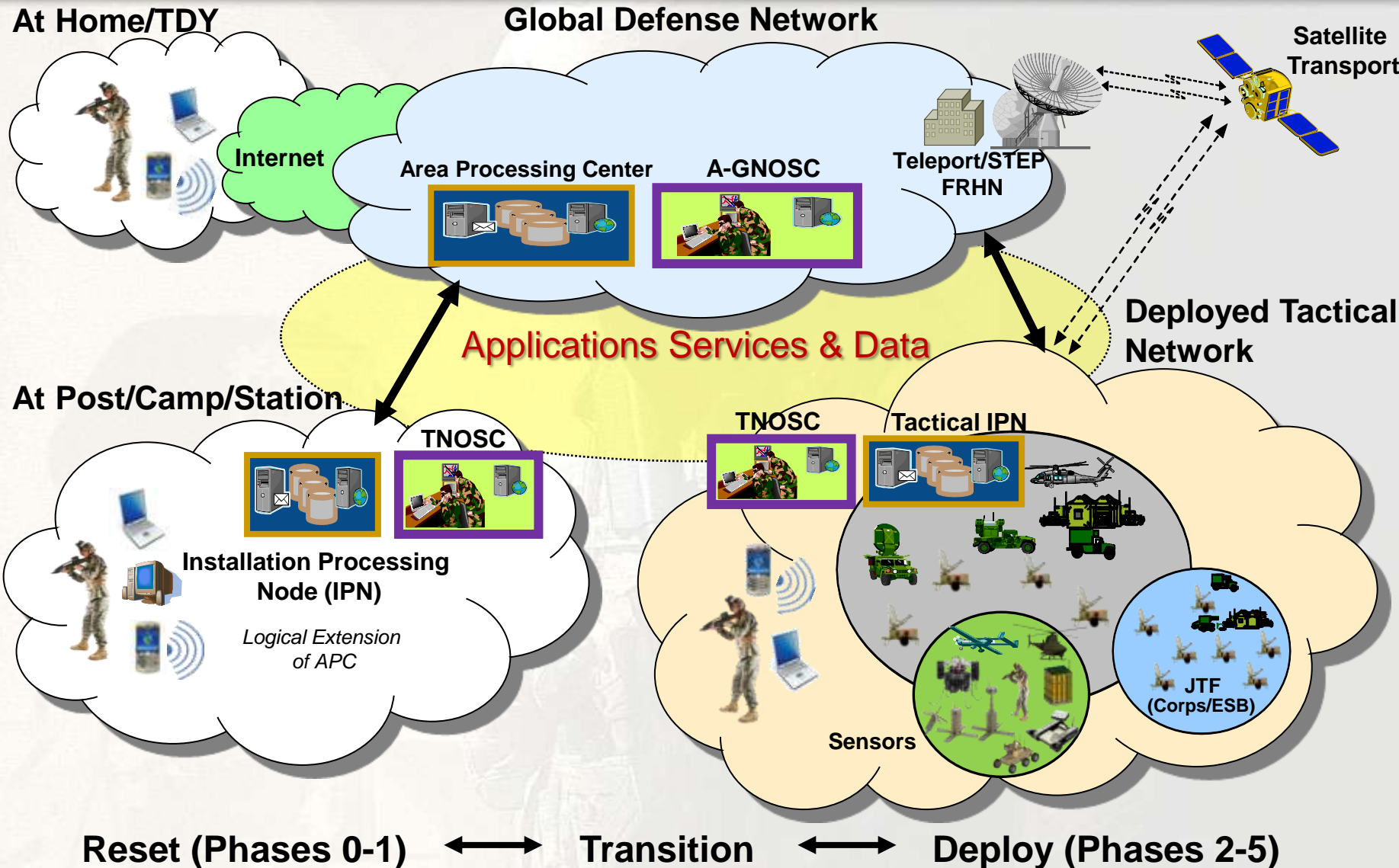
Responsiveness is dependent upon **expeditionary capabilities**

Many expeditionary capabilities are **NETWORK** dependent

“We’re building an Army that is a versatile mix of *tailorable* and *networked* organizations operating on a *rotational basis* ... to provide a *sustained flow* of trained and ready forces for *full spectrum operations* ... and to hedge against *unexpected contingencies* ... at a tempo that is predictable and sustainable for our *all-volunteer force*.” – Chief of Staff Army, 6 Apr 2010



Army Enterprise Architecture





Transformation Using GNEC Strategy



CSA Memorandum: LandWarNet – Global Network Enterprise Construct Strategy Implementation, 2 March 2009



UNITED STATES ARMY
THE CHIEF OF STAFF

MEMORANDUM FOR SEE DISTRIBUTION

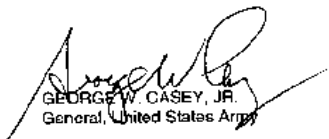
SUBJECT: LandWarNet – Global Network Enterprise Construct

1. We are transforming to become a fundamentally different Army expeditionary force capable of full-spectrum operations. To support this transformation, we must fundamentally change and adapt our institutions, including LandWarNet to a centralized, more secure, operationalized, and sustainable network capable of supporting an expeditionary Army in this era of persistent conflict. To lay the foundation for further network expansion in the future, we will synchronize this transformation with other Army activities including the Army Force Generation model, Base Realignment and Closure, and Global Defense Posture Realignment. In FY09, we will set the foundation for the global network by achieving an initial operating capability of a network service center (NSC) in Europe; expanding these NSCs throughout all other Theaters by FY11.

2. We will use the Global Network Enterprise Construct (GNEC) as the network enterprise strategy. The CIO/G6 will establish new procedures to operationalize the network and improve the overall security of network services and capabilities. We will modify purchasing procedures to achieve better efficiencies in the procurement of our IT systems, and we will pursue joint interoperability with our other Service partners as we construct our network enterprise.

3. In the end, all Army generating force networks will be managed by a single command (Network Enterprise Technology Command (NETCOM)) organizing Army information to make it globally accessible, useful and secure for Soldiers deployed anywhere in the world.

4. The establishment of the Army global network enterprise requires dramatic changes to our current processes and network operations. Our combat-seasoned force is the best in the world, and transforming our network enterprise is central to a land force capable of conducting full-spectrum operations in the 21st Century. Your support is essential for our success.


GEORGE W. CASEY, JR.
General, United States Army

“Over the next three years, the Army will transform LandWarNet to a centralized, more secure, operationalized, and sustainable network capable of supporting an expeditionary Army in this era of persistent conflict.” – Chief of Staff, Army

A Soldier's Story



Ideal End-State

Universal E-Mail Address

Universal File Storage

One Telephone Number

**Standard Collaboration
Tool Set**





GNEC Objectives



Operationalize LandWarNet to enable global warfighting capability



Dramatically improve Network Defense posture



Realize Economies and Efficiencies while improving Effectiveness



Enable Army Interoperability and Collaboration with mission partners



Network Service Center – Construct



Fixed Regional Hub Node (FRHN)

- Provides Global Transport
- Intra-Theater Connectivity
- Up to 3 Div per Hub Node
- Connect to each other & DISN services in garrison

Area Processing Center (APC)

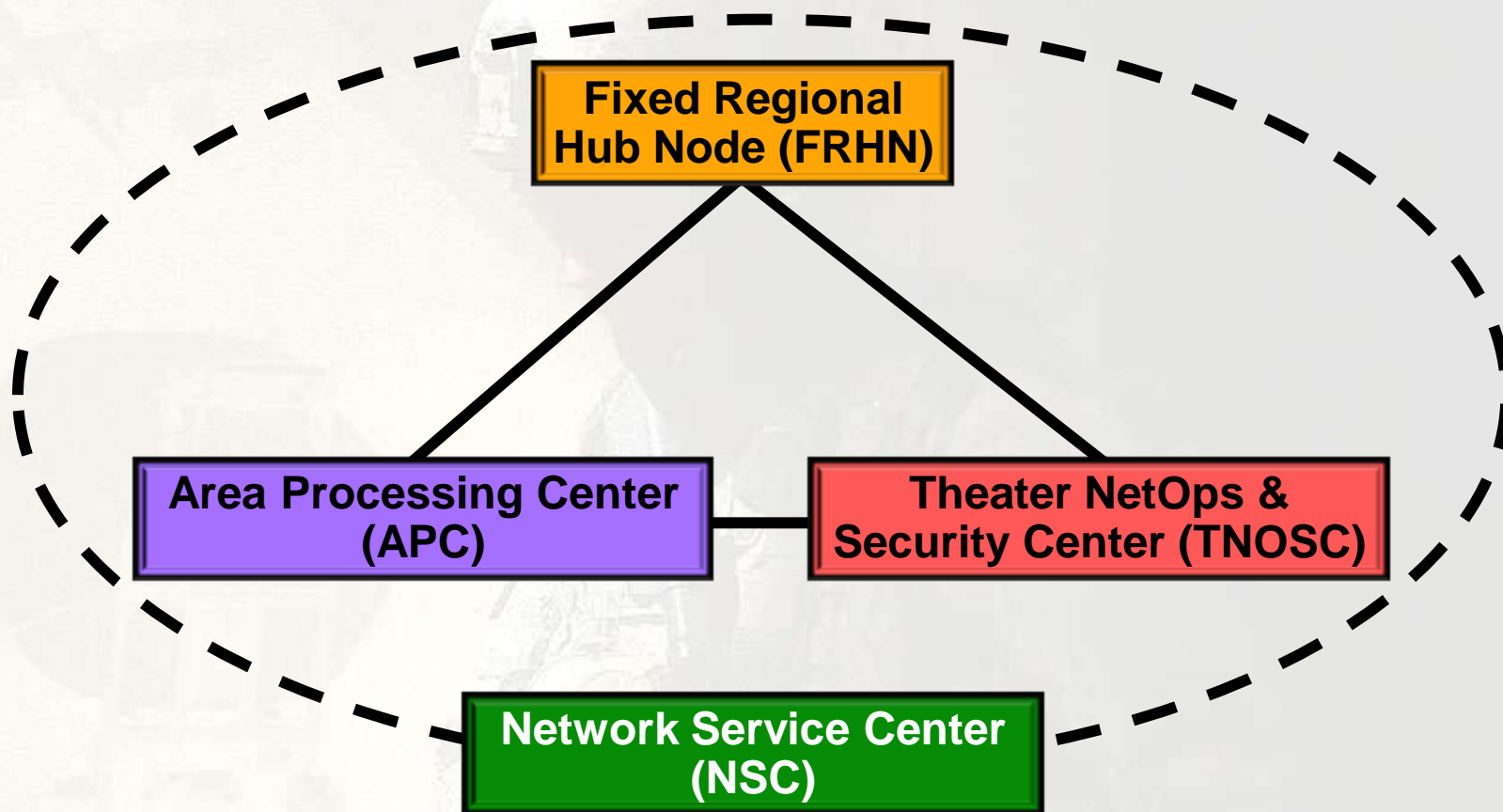
- Data & Applications
- Consolidated IT hardware
- Projection & forward staging of info & services

Theater NetOps & Security Center (TNOSC)

- Technical oversight, enterprise, content, spectrum & Help Desk
- NetOps SA & optimize GIG avail
- Information Assurance & Security



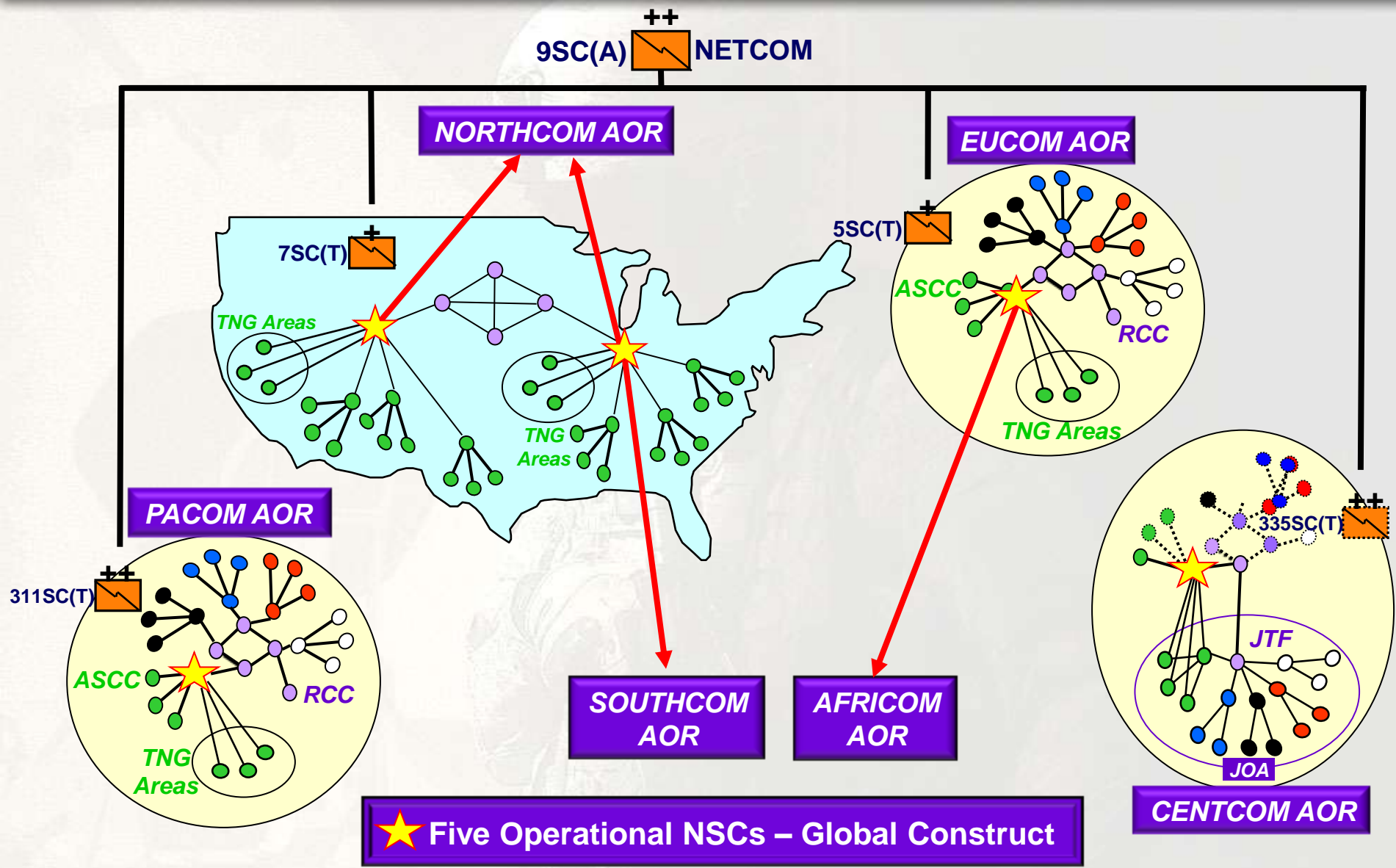
Network Service Center – Construct



The “Always On” Network



Network Service Center – Construct



• UNITY OF EFFORT

① "BIG 5" OF 21st Cent

② WHAT TRYING TO ACCOMP W/
NETWORK? CONCEPT OF BC/EMPOWER
LEADS

- LOWER EXPECTATIONS

- "TO CREATE CONTEXT"

- SIMULATIONS FOR TESTING / NETWORK + BC APPS

- FLEXIBLE / ITERATIVE

- BASELINE ASSESSMENT

- CYBER





Transforming Our Army & Our Signal Regiment

Supporting Efforts to Attack the Processes that Slow C4/IT Innovation





Enterprise E-Mail



- Enterprise E-Mail provides functional capabilities:
 - Synchronize with Active Directory consolidation
 - Single Global Identity for all users – Soldier's Story
 - Single Enterprise Service Desk
- Phase 1 Priority will be BRAC Users
 - Focus on AMC, FORSCOM & TRANSCOM HQs
 - Expand to Ft Riley, Ft Huachuca & Redstone Arsenal
- Will evaluate performance and potential, then move to Phase 2 for remainder of Army and then DoD



NSC/APC Strategy

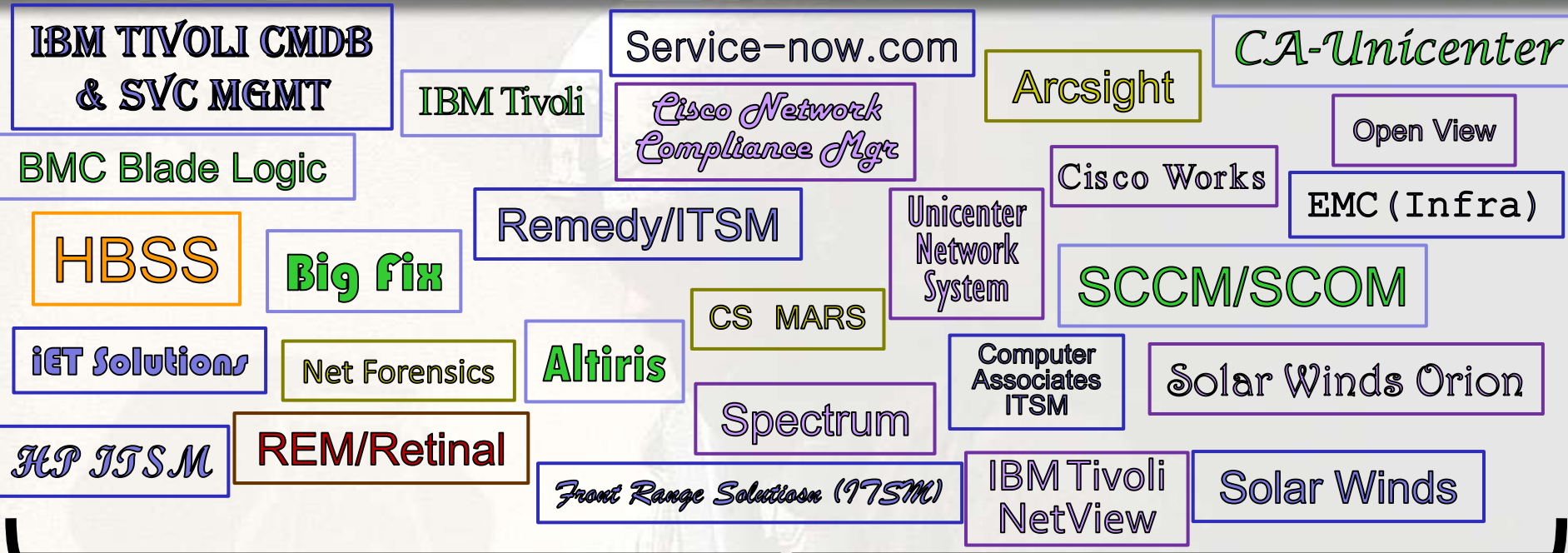


- NSC/APC Spiral 1 contract status:
 - RFP Prep: 2nd-3rd QTR / FY10
 - Industry Day: 3rd QTR / FY10
 - SSEB: 3rd QTR / FY10
 - Contract Award: End 3rd QTR / FY10

- Outcomes of the NSC/APC strategy include:
 - Migration & Hosting Services for Applications & Data
 - Infrastructure as a Service
 - Containerized Services
 - Disaster Recovery & Business Continuity Services



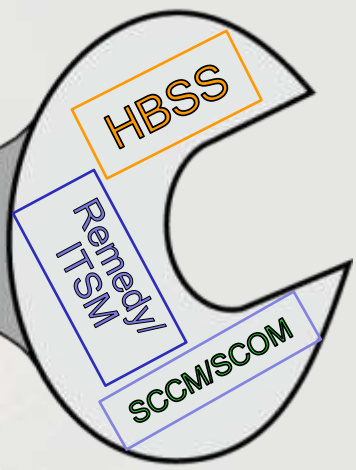
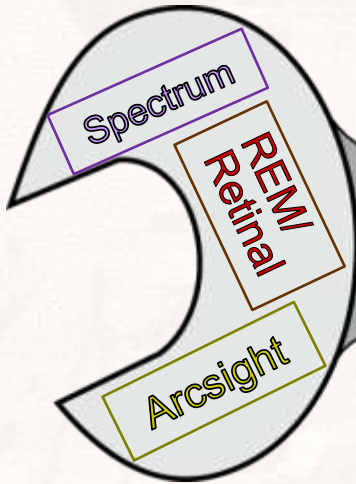
NetOps Tools



“6 + 1”

Enterprise AD

“See – Know – Do”





Proving the Concept: OPVAL-II



Demonstrate Operational Capabilities

- **Early Collaboration.** Maintain continuous access to data resources across space & time utilizing a single, persistent tactical identity
- **Fight Upon Arrival.** Rapidly deploy to an austere environment, fight upon arrival, seize & maintain the initiative without loss of operational tempo or situational awareness
- **Enterprise Battle Command.** Command & control widely-dispersed forces through NSC-provisioned warfighting services



75th Fires Brigade

- *Deploy a BCT-sized unit leveraging the range of global network enterprise capabilities through all phases of its deployment in FY11*
- *Deploy all BCT-sized units relying on the range of global network enterprise capabilities through all operational phases NLT FY12*

– GEN George Casey, Chief of Staff Army



Transforming Our Army & Our Signal Regiment

Supporting Efforts to Attack the Processes that Slow C4/IT Innovation

CSA Tasker – Unify the Network



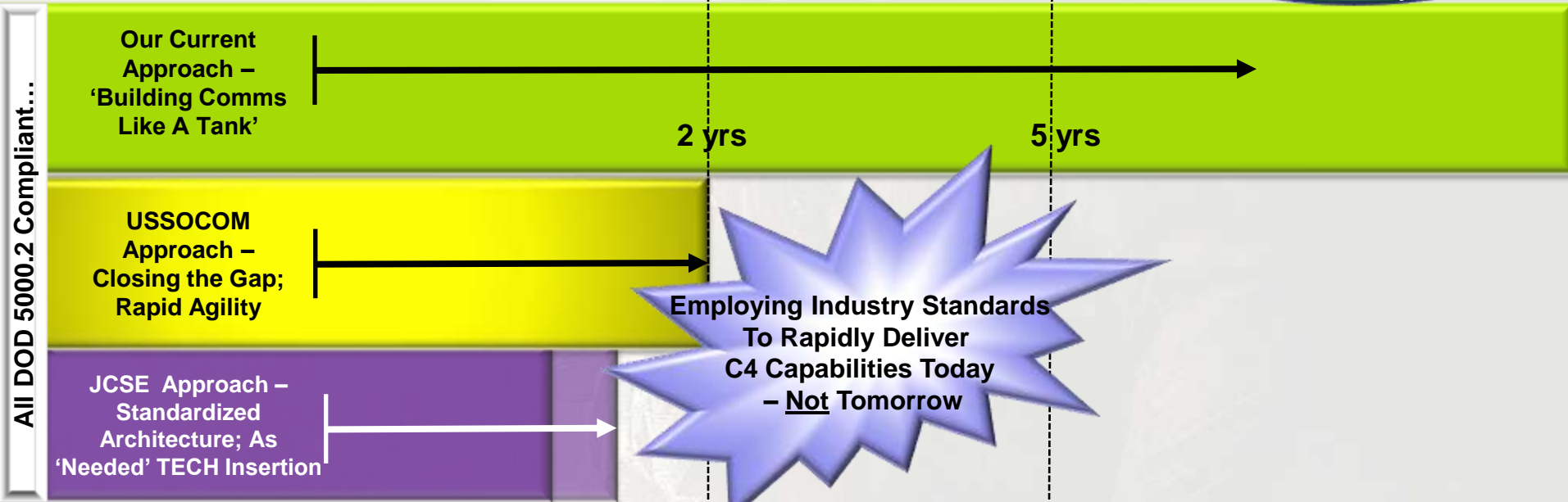
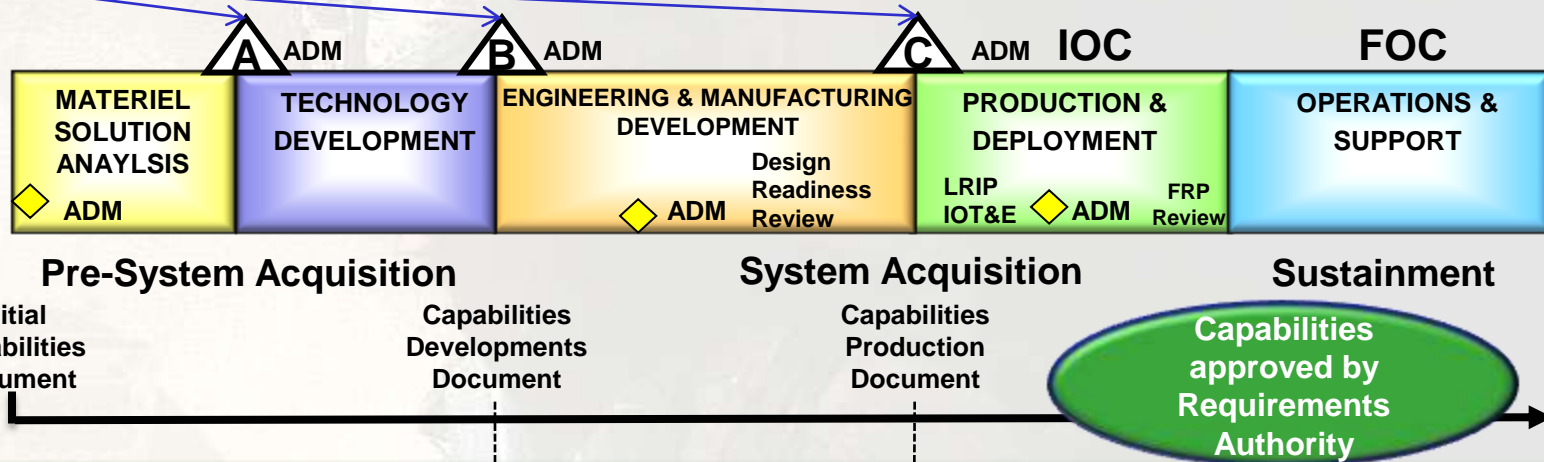


Evaluating Other Processes to Close the Capability 'Gap'

Leveraging Industry Standards ... Remaining DOD 5000.2 Compliant

JCIDS: User needs & Technology Opportunities

DOD Acquisition Framework and Requirements process relationship





Transforming Our Army & Our Signal Regiment

Supporting Efforts to Attack the Processes that Slow C4/IT Innovation

CSA Tasker – Unify the Network





Battle Command Environment



Current



- Hardware Redundancy
- “Bolt-on” Electronics Systems
- Complex Cabling
- Large System Reset & Lifecycle Costs



- Software Redundancy
- “Work-around” Integration
- Complex Knowledge Management
- Large Training & Upgrade Costs



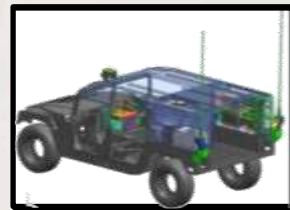
Battle Command Environment



Current



Future



- HMMWV
- MRAP/MRAP-ATV
- Abrams
- Stryker
- Bradley
- GCV

Platforms



Common Network Integration Kits (NIK)



Common Hardware with Integrated Apps

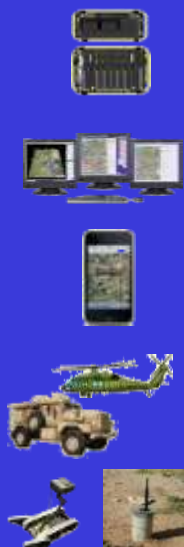


End User Environment & Process



End User Environment

Standardize



LINUX	WIN
✓	✓
	✓
✓	
✓	
✓	

OS
Security
Development
...

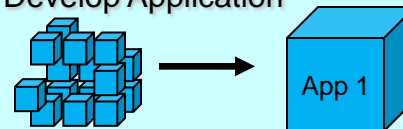
Process

Define Business Process

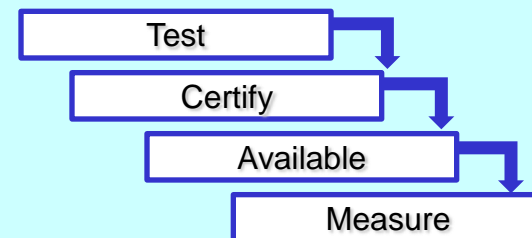


Select Environment

Develop Application



Submit to App Store



Pilots: PEO IEWS – DCGS C&A; PEO C3T – BC Web SDK; TRADOC & PEO EIS – Mobile Apps, JPM Guardian & ADCF-E2E Process; Apps 4 the Army (non-POR)



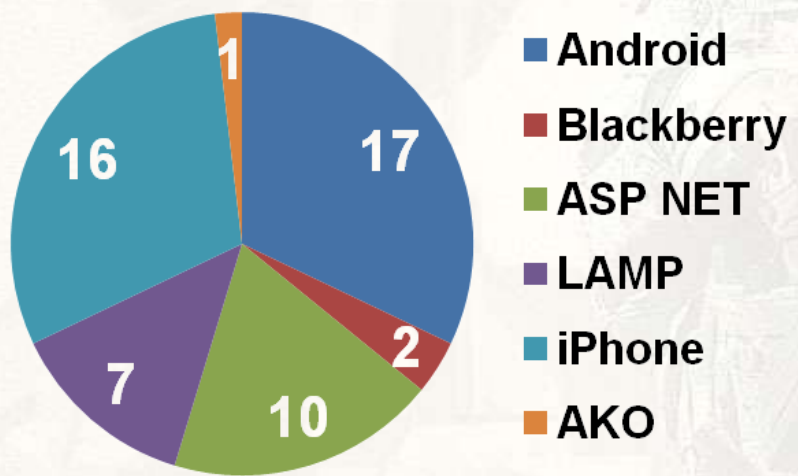
A4A – Completed Submissions



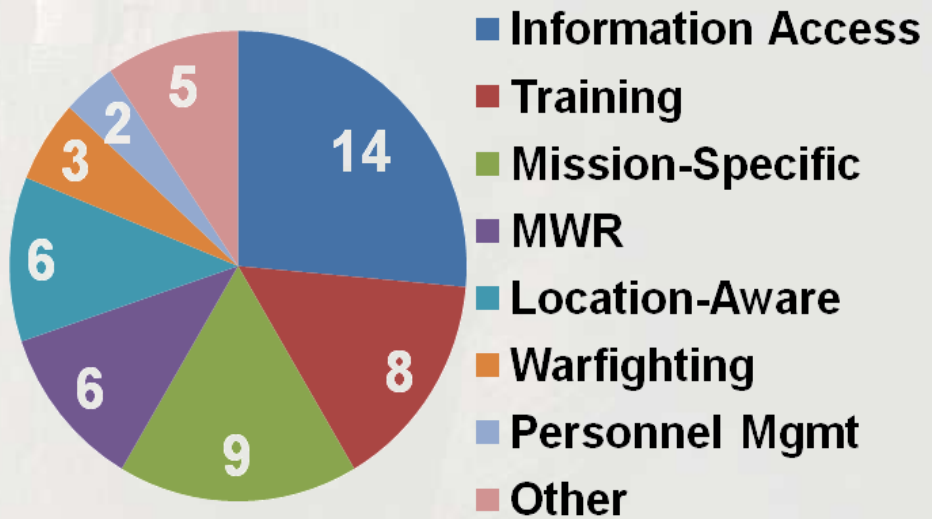
Total of 53 Apps/Projects Submitted

	Civilian	Enlisted	WO	Officer	Totals
Active Military		5	1	9	15
Reserves		3		1	4
Civilians	52				52
Totals	52	8	1	10	71

By RACE Environment



By App Category

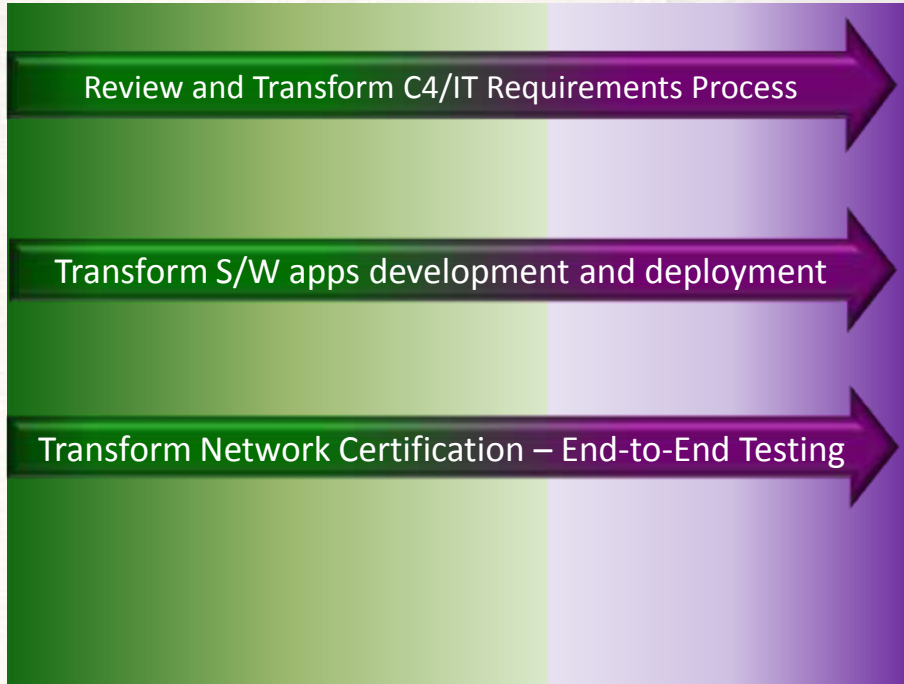




Transforming Our Army & Our Signal Regiment

Supporting Efforts to Attack the Processes that Slow C4/IT Innovation

CSA Tasker – Unify the Network

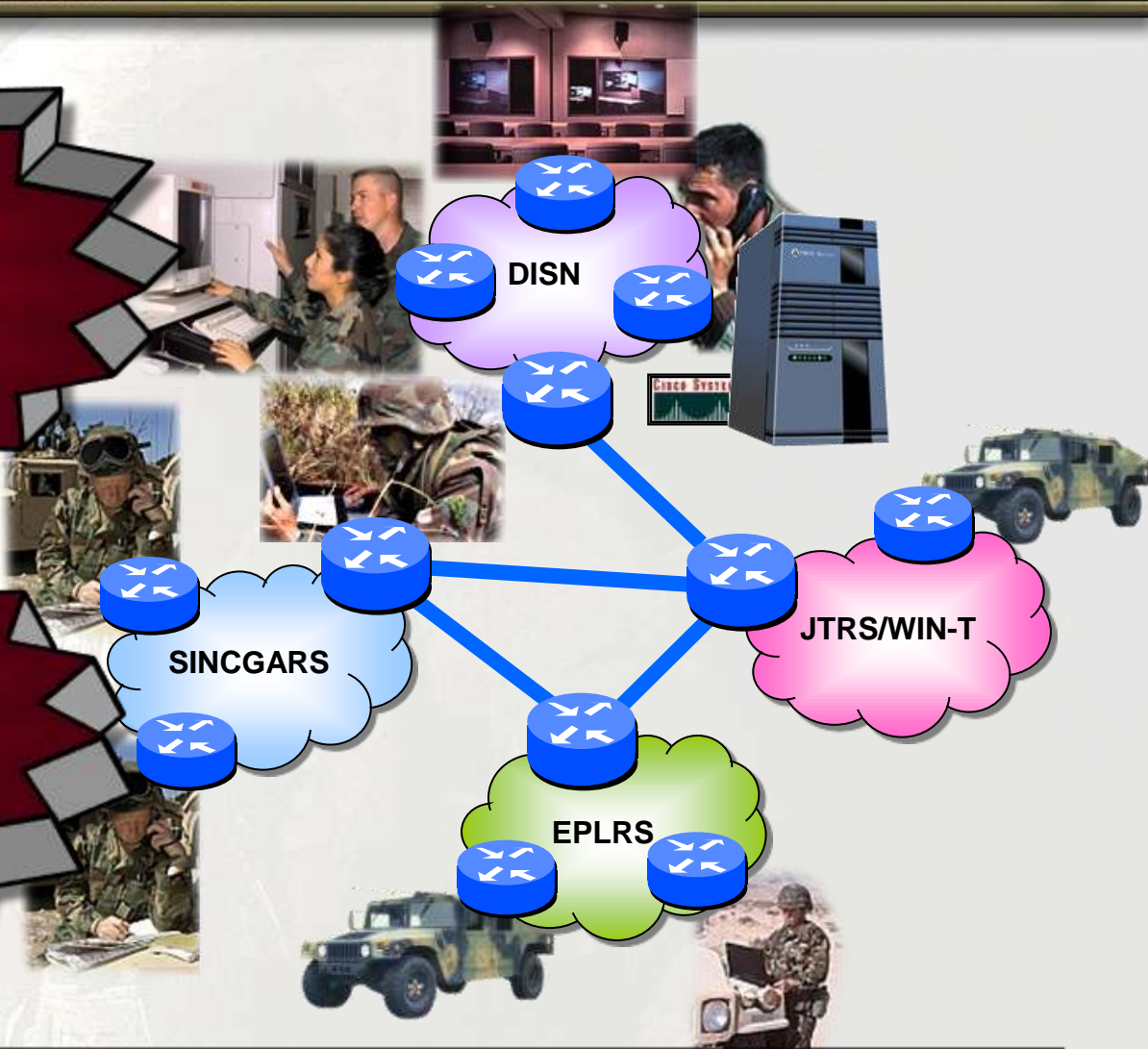




Moving to “Everything Over IP” (EoIP)

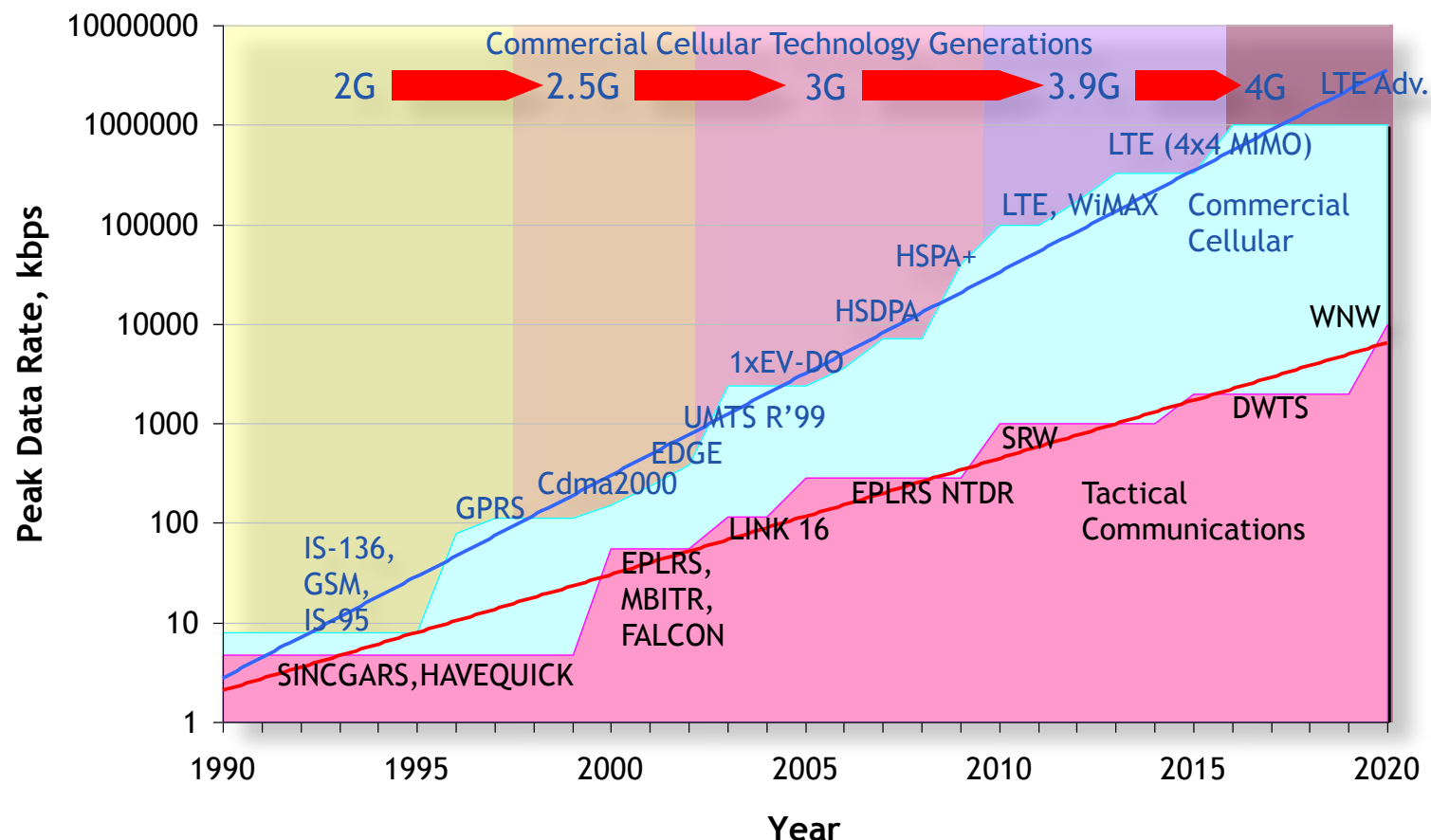
IP routers
connect
dissimilar
networks...

...end-to-end
interoperability



Internet Protocol networking provides a *seamless convergence layer* for all applications and networks ... and Sensors, Fire & Maneuver

Commercial Cellular & Tactical Communications Data Rate Evolution



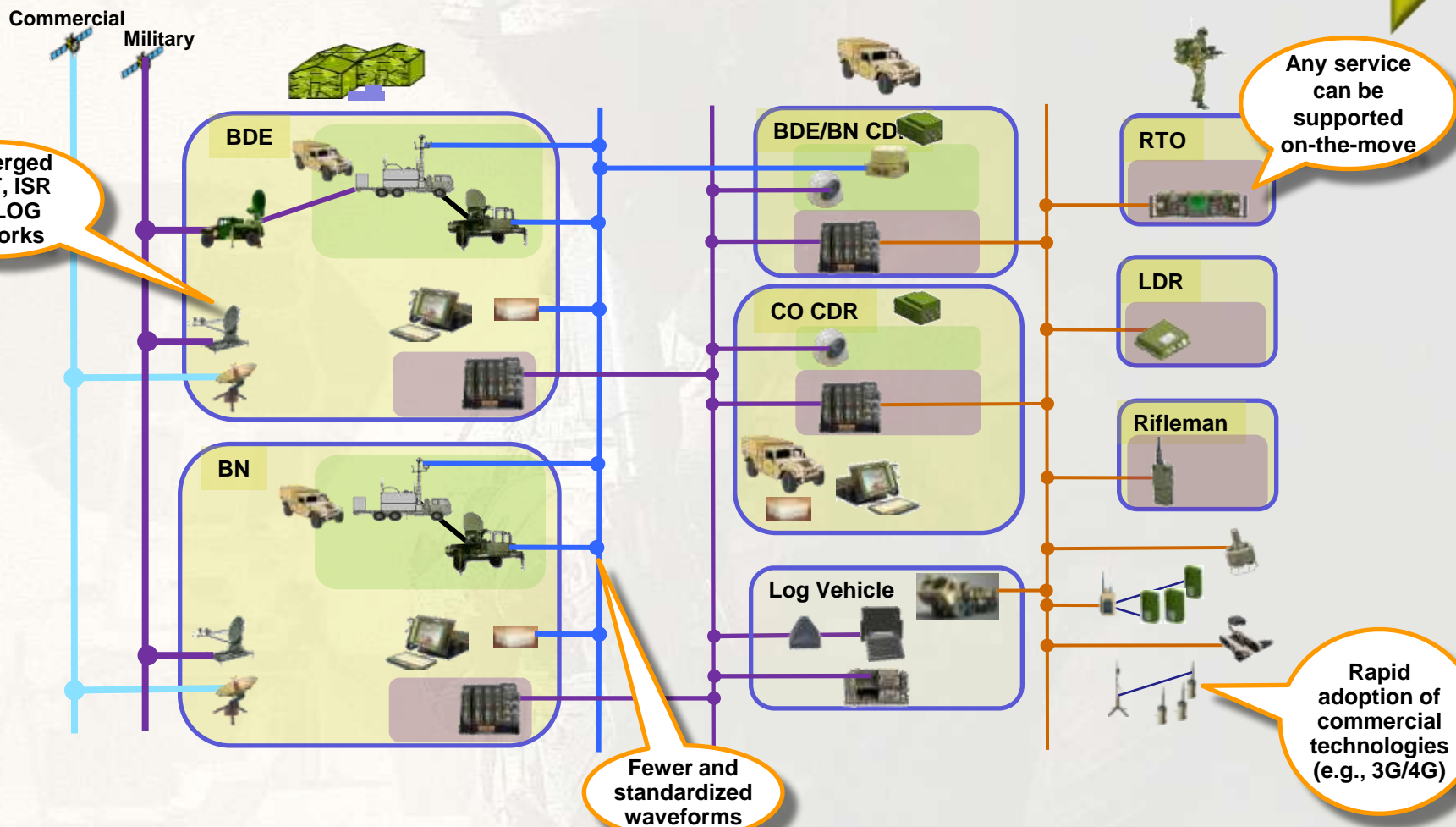
The Commercial Marketplace is Driving Innovation at an Accelerated Pace vs. the DoD market – DoD should Leverage this Innovation More Effectively



Example 'To-Be' Network Architecture Eliminating the Stovepipes



*All systems riding a common, interoperable EoIP Backbone
Establishing a 'plug and play' environment*





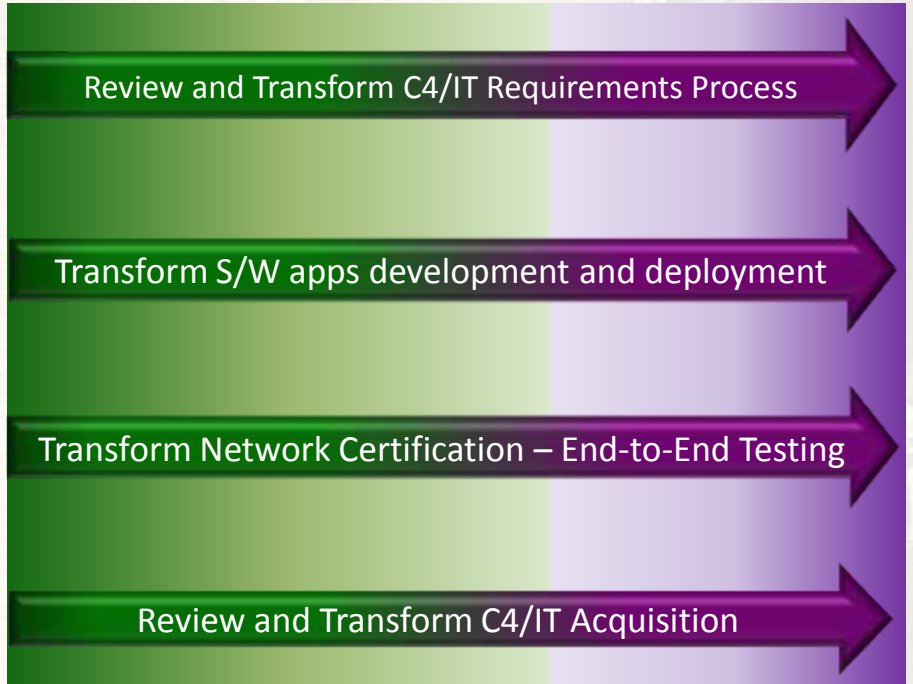
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Supporting Efforts to Attack the Processes that Slow C4/IT Innovation

VCSA Memo

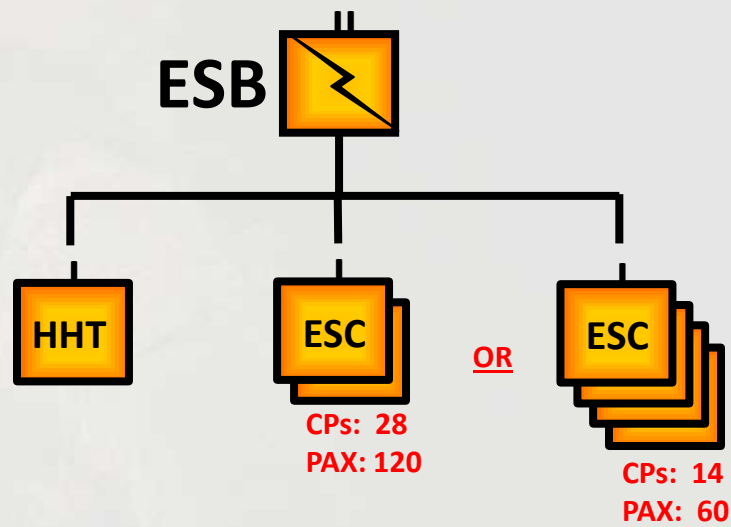
Establish Governance Over The Deployment of the Network

CSA Tasker – Unify the Network



'End State' Architecture to Guide Investment

Our End State
Influence POM 12-17....



...and Re-Balance Signal Forces thru the FAA



Cyber Mission Statements



USCYBERCOM Mission:

USCYBERCOM plans, coordinates, integrates, synchronizes and conducts activities to: direct the operations and defense of specified DoD networks; prepare to, and when directed, conduct full spectrum operations in and through cyberspace IOT enable actions in all domains, ensure US/Allied freedom of action in cyberspace and deny the same to our adversaries.

ARFORCYBER Mission:

ARFORCYBER plans, coordinates, integrates, synchronizes, directs and conducts network operations and defense of All Army networks; when directed, conducts cyberspace operations in support of full spectrum operations to ensure US/Allied freedom of action in cyberspace, and to deny the same to our adversaries.



ARFORCYBER COA



■ Stakeholder Agreements:

- Assign NETCOM to ARFORCYBER (vs. DRU)
- OPCON INSCOM for Cyber Operations
- Establish integrated Cyber Operations Center

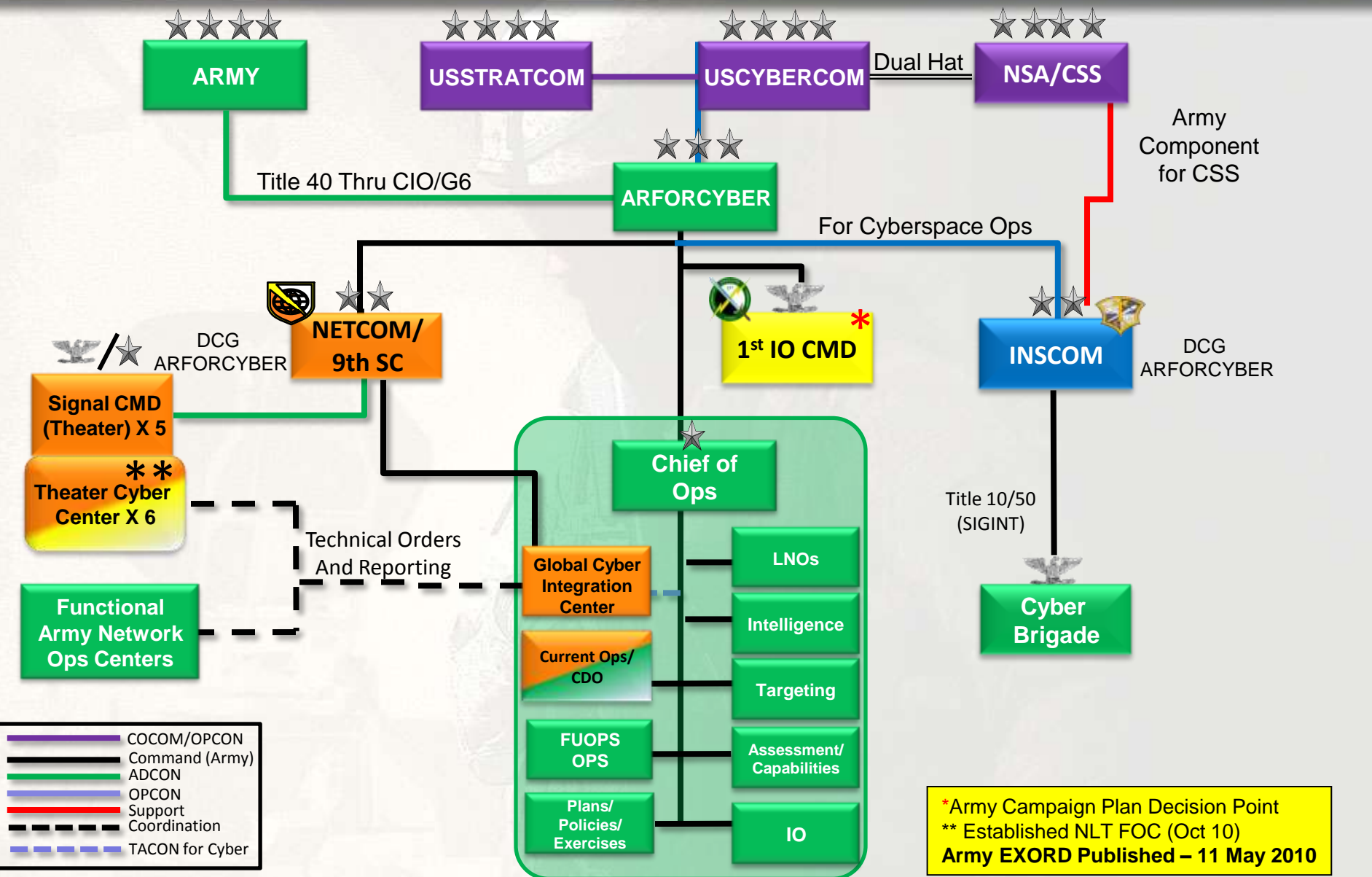


Improve Army
C2 and Unity of
Effort for Cyber

- 3 Star Commander for ARFORCYBER: On par with other Service Component Leadership; provides one point of contact for Army Senior Leadership
 - New Command with single mission – focused on Cyber
 - Entire command and staff in the National Capital Region – Center of Gravity for DoD Cyber Operations, proximity to USCYBERCOM
- Efficiency and/or Affordability:
 - Establishment of New Command achieves improved unity of command and effort in the near and long term



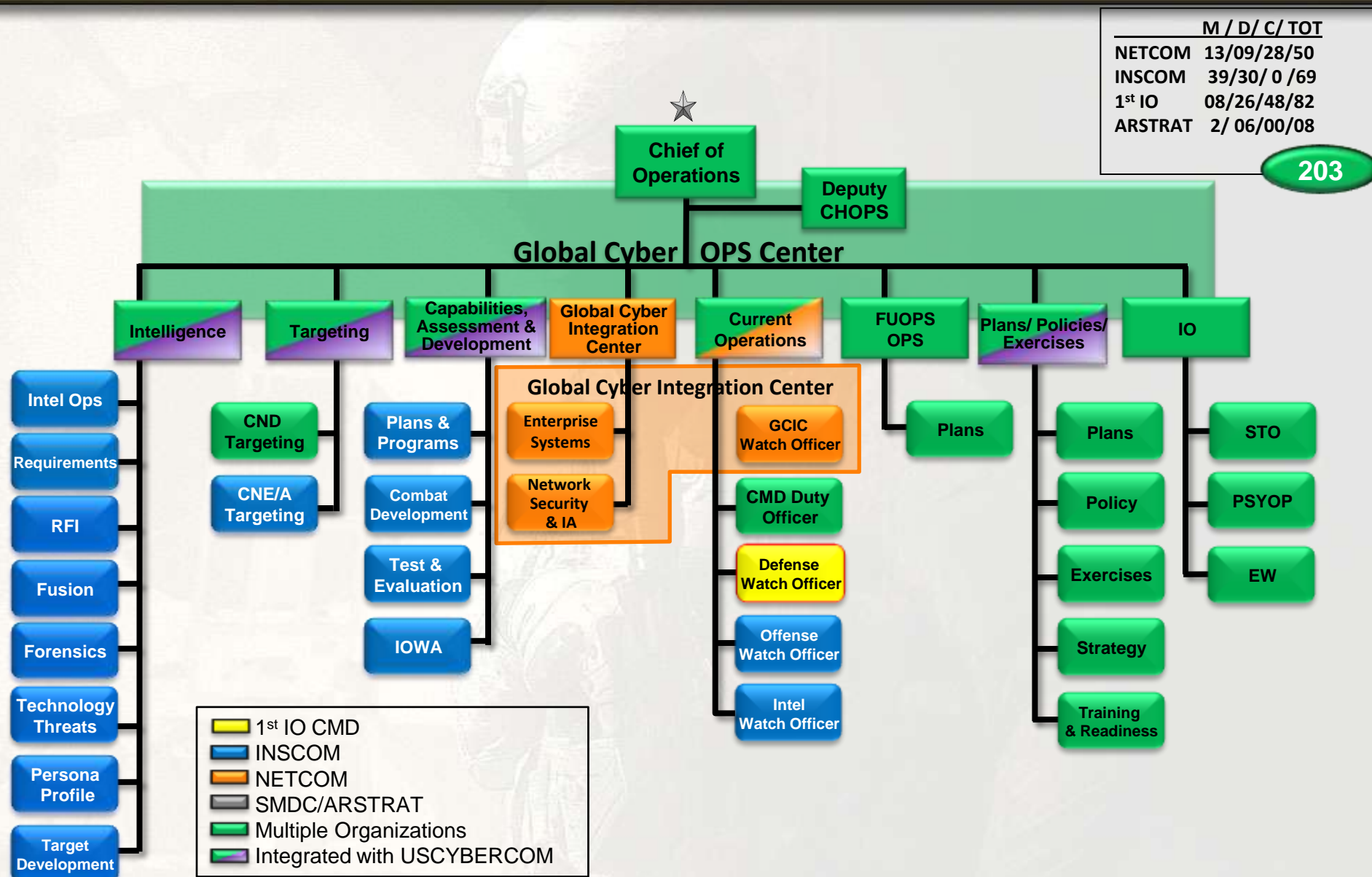
ARFORCYBER Org



* Army Campaign Plan Decision Point
** Established NLT FOC (Oct 10)
Army EXORD Published – 11 May 2010



Global Cyber Operations Center



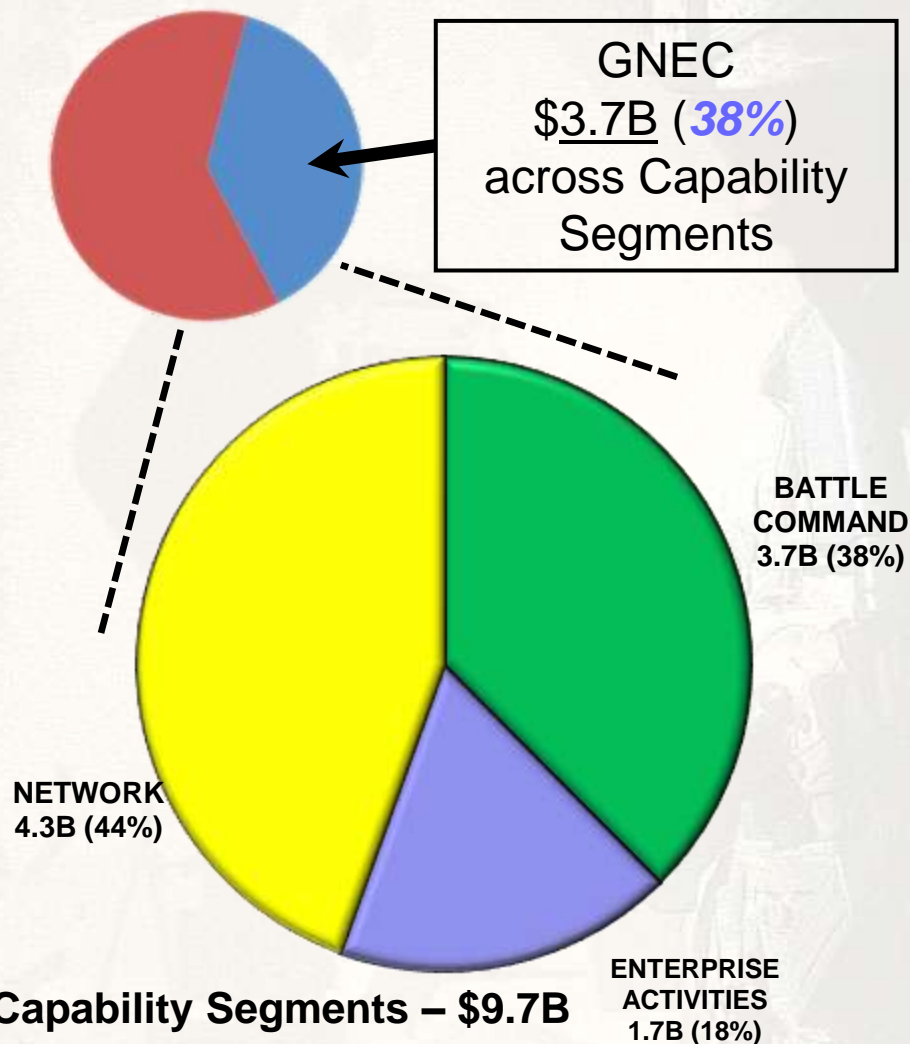


Distribution of (C4/IT) Funding

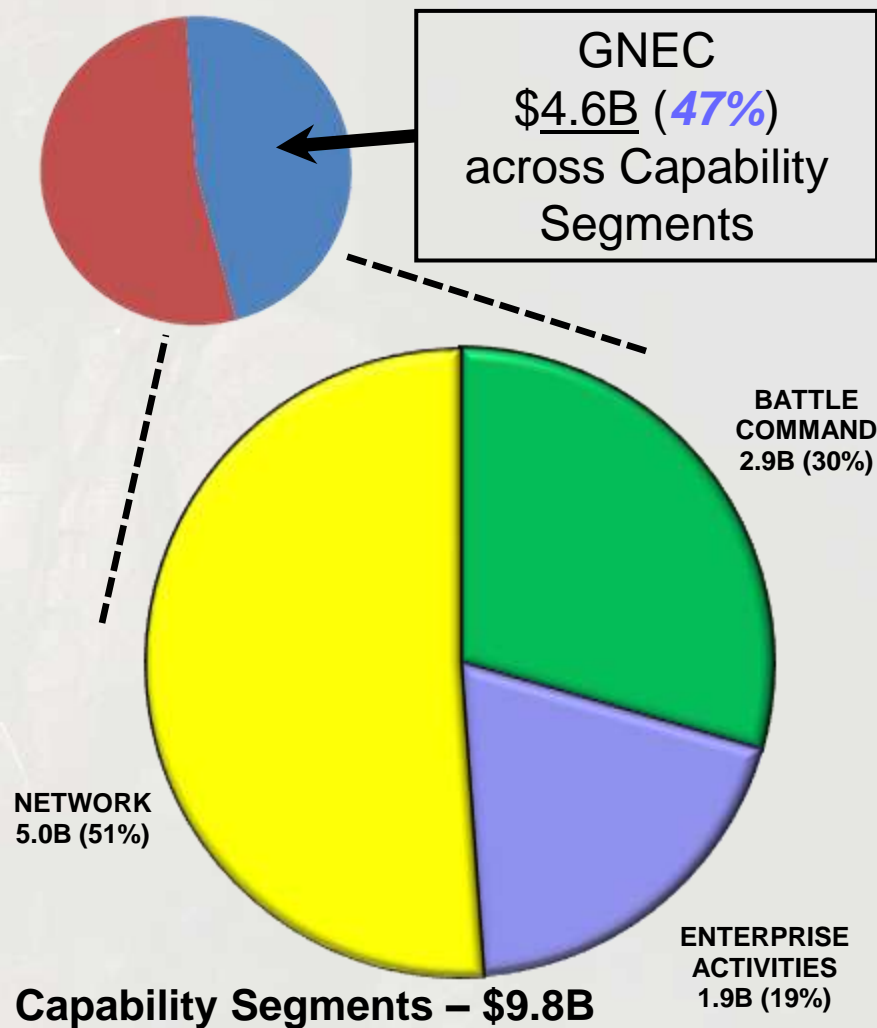
PBR 11-15BP1.0 By Capability Segment



FY2009



FY2011





FY10 – IT Budget

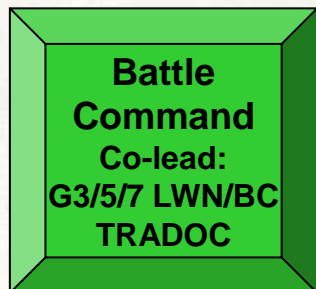


Segments

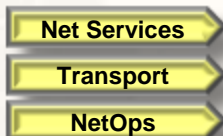
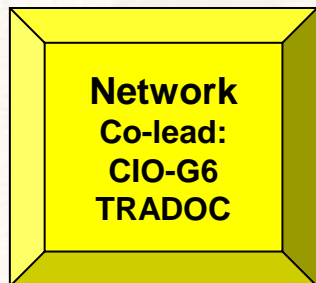
Sub-Segments

C4/IT Resources

Major Programs



- Army Battle Command Systems
- Global Cmd & Control System-Army
- Maneuver Control System
- **Global Positioning System**
- **Blue Force Tracker**
- Forward Area Air Defense C2 System
- Global Combat Services Support-Army
- Advance FA Tactical Data System



- **Warfighter Info Network – Tactical**
- **Joint Tactical Radio System**
- Installation Information Improvement Modernization Program
- **Enterprise Satellite Terminals**
- **Long Haul Communications**
- **Information Assurance Programs**
- Army/Defense Knowledge Online



- Single Army Logistics Enterprise
- General Fund Enterprise Business System
- Defense Integrated Human Resources System
- Army Recruiting Systems
- Medical Communications for Combat Casualty Care



POM 12-16 Key Initiatives



- Provide baseline C4IM Services and enable the transition to more efficient and effective service delivery
- WIN-T and JTRS full funding
- Establish enhanced oversight of Commercial SATCOM
- Identify and resource C4/IT “Other Procurement Army” (OPA) for SRM and minor construction consistent with OPA tails identified and resourced for MILCON requirements
- Modernizing IT Infrastructure
 - Network Modernization
 - Tactical & CONUS-based Server Implementation
- Area Processing Center Stand-Up and Sustainment
 - (Columbus, OK City, Redstone, Bragg)
 - Establish and promote federated data centers



Conclusions



Army CONUS-Based Strategy
...transforming to an Expeditionary Army



Global Network Enterprise Construct
...Operationalize, Defend, Efficiencies & Effectiveness, Joint



Unity of Effort – Warfighter Support
...transforming Our Army & the Signal Regiment



Shared Situational Awareness
*...**Bottom Line** for the Joint Warfighter*





Celebrating 150 Years of Signal Corps Support to the Warfighter



ARMY STRONG!



QUESTIONS + THOUGHTS



LTC Jeff Sorenson

Chief Information Officer/G-6, HQDA

AMERICA'S ARMY: THE STRENGTH OF THE NATION
ARMY STRONG